

as, for example, the speaker **24**, the ringer **22**, the microphone **26**, the display **28**, and/or the like. The processor **20** and/or user interface circuitry comprising the processor **20** may be configured to control one or more functions of one or more elements of the user interface through computer program instructions, for example, software and/or firmware, stored on a memory accessible to the processor **20**, for example, volatile memory **40**, non-volatile memory **42**, and/or the like. Although not shown, the apparatus may comprise a battery for powering various circuits related to the mobile terminal, for example, a circuit to provide mechanical vibration as a detectable output. The user input interface may comprise devices allowing the apparatus to receive data, such as a keypad **30**, a touch display, which is not shown, a joystick, which is not shown, and/or at least one other input device. In embodiments including a keypad, the keypad may comprise numeric 0-9 and related keys, and/or other keys for operating the apparatus.

**[0062]** As shown in FIG. 2, apparatus **10** may also include one or more means for sharing and/or obtaining data. For example, the apparatus may comprise a short-range radio frequency, RF, transceiver and/or interrogator **64** so data may be shared with and/or obtained from electronic devices in accordance with RF techniques. The apparatus may comprise other short-range transceivers, such as, for example, an infrared, IR, transceiver **66**, a Bluetooth™, BT, transceiver **68** operating using Bluetooth™ brand wireless technology developed by the Bluetooth™ Special Interest Group, a wireless universal serial bus, USB, transceiver **70** and/or the like. The Bluetooth™ transceiver **68** may be capable of operating according to low power or ultra-low power Bluetooth™ technology, for example, Wibree™, radio standards. In this regard, the apparatus **10** and, in particular, the short-range transceiver may be capable of transmitting data to and/or receiving data from electronic devices within a proximity of the apparatus, such as within **10** meters, for example. Although not shown, the apparatus may be capable of transmitting and/or receiving data from electronic devices according to various wireless networking techniques, including 6LoWpan, Wi-Fi, Wi-Fi low power, WLAN techniques such as IEEE 802.11 techniques, IEEE 802.15 techniques, IEEE 802.16 techniques, and/or the like.

**[0063]** The apparatus **10** may comprise memory, such as a subscriber identity module, SIM, **38**, a removable user identity module, R-UIM, and/or the like, which may store information elements related to a mobile subscriber. In addition to the SIM, the apparatus may comprise other removable and/or fixed memory. The apparatus **10** may include volatile memory **40** and/or non-volatile memory **42**. For example, volatile memory **40** may include Random Access Memory, RAM, including dynamic and/or static RAM, on-chip or off-chip cache memory, and/or the like. Non-volatile memory **42**, which may be embedded and/or removable, may include, for example, read-only memory, flash memory, magnetic storage devices, for example, hard disks, floppy disk drives, magnetic tape, etc., optical disc drives and/or media, non-volatile random access memory, NVRAM, and/or the like. Like volatile memory **40** non-volatile memory **42** may include a cache area for temporary storage of data. At least part of the volatile and/or non-volatile memory may be embedded in processor **20**. The memories may store one or more software programs, instructions, pieces of information, data, and/or the like which may be used by the apparatus for performing functions of the mobile terminal. For example, the memories may com-

prise an identifier, such as an international mobile equipment identification, IMEI, code, capable of uniquely identifying apparatus **10**.

**[0064]** Without in any way limiting the scope, interpretation, or application of the claims appearing below, a technical effect of one or more of the example embodiments disclosed herein is that co-existence between RATs is improved. Another technical effect of one or more of the example embodiments disclosed herein is that interference caused to hidden transmitters is reduced. Another technical effect of one or more of the example embodiments disclosed herein is that access to a spectrum band is controlled based on relative priorities of data to be sent on different RATs.

**[0065]** Embodiments of the present invention may be implemented in software, hardware, application logic or a combination of software, hardware and application logic. The software, application logic and/or hardware may reside on memory, the control device or electronic components, for example. In an example embodiment, the application logic, software or an instruction set is maintained on any one of various conventional computer-readable media. In the context of this document, a “computer-readable medium” may be any media or means that can contain, store, communicate, propagate or transport the instructions for use by or in connection with an instruction execution system, apparatus, or device, such as a computer, with one example of a computer described and depicted in FIG. 2. A computer-readable medium may comprise a computer-readable non-transitory storage medium that may be any media or means that can contain or store the instructions for use by or in connection with an instruction execution system, apparatus, or device, such as a computer. The scope of the invention comprises computer programs configured to cause methods according to embodiments of the invention to be performed.

**[0066]** If desired, the different functions discussed herein may be performed in a different order and/or concurrently with each other. Furthermore, if desired, one or more of the above-described functions may be optional or may be combined.

**[0067]** Although various aspects of the invention are set out in the independent claims, other aspects of the invention comprise other combinations of features from the described embodiments and/or the dependent claims with the features of the independent claims, and not solely the combinations explicitly set out in the claims.

**[0068]** It is also noted herein that while the above describes example embodiments of the invention, these descriptions should not be viewed in a limiting sense. Rather, there are several variations and modifications which may be made without departing from the scope of the present invention as defined in the appended claims.

#### 1. An apparatus, comprising:

- a memory configured to store at least one first parameter;
- at least one processing core configured to control, using a cognitive radio principle, radio transmission using a first radio access technology, wherein the at least one first parameter is used in the cognitive radio principle;

- wherein the at least one processing core is configured to select the at least one first parameter in dependence of at least one second parameter, wherein the at least one second parameter at least one of relates to a second radio access technology and comprises a length of a last burst or silent period of the first radio access technology,